

Department of Digital Humanities

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School of Arts and Humanities, Department of Digital Humanities.

Master of Arts Course: Digital Humanities

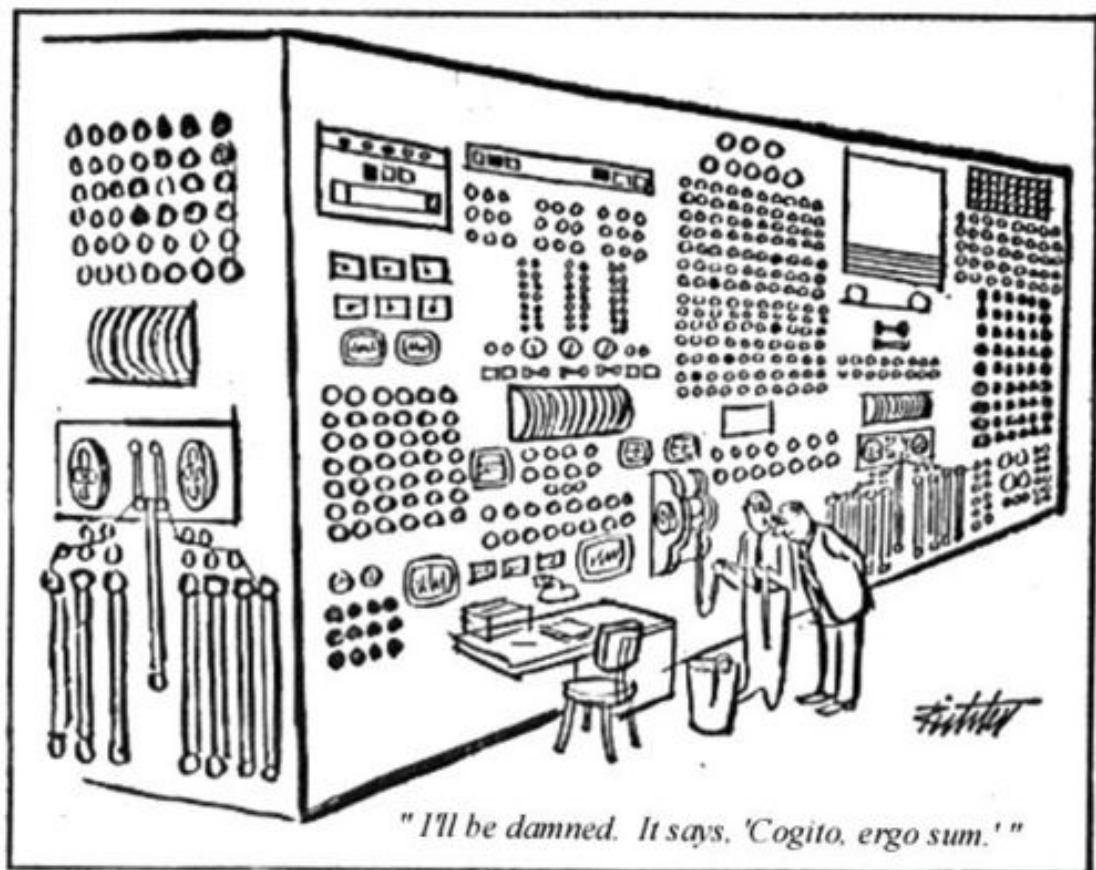
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Supervisor: Dr. Tobias Blanke

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By Mischa Richter (New Yorker). Available from [tumblr](#).

Table of contents

Contents	2
Introduction.....	3-9
Walter Benjamin's theoretical work and <i>Das Passagen-Werk</i>	10-17
The theoretical debates of Digital Humanities.....	18-33
A digital edition for Das Passagen-Werk?.....	34-44
Conclusion	45
Bibliography.....	46-60

Introduction

The present work will try to highlight the relevance of Walter Benjamin's work (1892-1940) in contemporary debates in the field of Digital Humanities.¹ Benjamin, a German writer or literary critic as he thought of himself (Arendt, 1968:156) of Jewish origin, is considered today as one of the most influential thinkers of the 20th century despite the fact that he did not leave any well grounded 'school of thought' with followers and he published only one book during in 1928, with the title *Ursprung des deutschen Trauerspiels* (The Origin of German Tragic Drama) during his lifetime. According to the acclaimed philosopher Jürgen Habermas, 'Benjamin belongs to those authors who cannot be summarized and whose work is disposed to a history of disparate effects' (Habermas et.al., 1979:32). We could not easily disagree with Habermas if we see how many different topics Benjamin discussed in his many small essays and reviews.

Soon after his death, Benjamin found great popularity, in contrast to his success during his lifetime. His work became widely known after his death due to the efforts of his close friends such as Theodor Adorno, Gershom Scholem and Hannah Arendt. Arendt in particular introduced his work to the Anglophone audience with her edition of some of his essays, which were published under the title *Illuminations* in 1968 and included his well known essay *The Work of Art in the Age of Mechanical Reproduction* (1936). Benjamin's *Gesammelte Schriften*² started to be published in German in 1972 and this publication was completed in 1989. Central to his thought is

¹ From now on DHs

² Edited by Rolf Tiedemann and Hermann Schweppenhäuser.

his unfinished work *Das Passagen-Werk*³, which Benjamin began work on at the end of 1920s and left unfinished in 1940, year of his death. The work was edited by Rolf Tiedemann, a student of Theodor Adorno, and was first published in 1982 as the fifth volume of the *Gesammelte Schriften*. The mysterious and cryptic structure of this ‘book’ had provoked the curiosity of many scholars even before its publication and it we are going to talk more about it later on.

We decided to focus on Benjamin for three main reasons: first, his influence and impact on the thought of 20th century; second, because his influence is still relatively compared with other theorists unexplored in the field of DHs, for example the work of Jacques Derrida or Marshall McLuhan; and third, Benjamin’s unfinished PW can provide some researchers in DHs with a lot of content for further analysis and experimentation.

According to Graeme Gilloch, Benjamin is still immensely relevant and can be fully considered as a contemporary thinker which has also had a great influence on postmodern thinkers such as Roland Barthes and Jean Francois-Lyotard (Gilloch, 2002) or media thinkers such as Vilem Flusser and even the more recent Katherine Hayles. Benjamin, together with two other great thinkers of the same era, Bertolt Brecht and Siegfried Kracauer, realised early on the great pedagogical role of mass media. In cultural and historical analysis too Benjamin was quite modern, with his passion for collecting and preserving precious counter-histories that are important for our collective memory (Gilloch, 2002:11-12). His analysis of art and culture are also still relevant, with his prediction that art will no longer find time to adapt to technological processes or his understanding of culture as a politically and ideologically non-innocent bystander (Benjamin, 1999:171).

³ From now on PW.

Even his writing style and research methods were quite modern for his period. According to Erdmut Wizisla, Benjamin developed his own index card system and he developed a type of primitive ‘copy and paste’ methodology a long time before the development of computer programs that can order and re-order notes.

In brief, Benjamin’s main topics were those which are important to any historical analysis interrelationship between past and present, the philosophical and linguistic significance of language as a tool of transmitting ideas and knowledge, and the impact of technology on the way that humans interpret and perceive the world around them, in particular art and aesthetics. Benjamin noticed the importance of images, for example, in understanding and interpreting the world around us, a process that he described with his concept of *Denkbilder* or thought-images. Benjamin tried to show that in some cases the essence of the 19th century could be more easily grasped in the image rather than in the text (Pusca, 2009:241). His period was a period of important shifts in cognitive styles - something that in a way we are also experiencing at present (Hayles, 2007b:187).

In 1933 Benjamin wrote, regarding speed and reading, that reading will ‘become the effort or gift of letting the mind participate in that measure of time in which similarities flash up fleetingly out of the stream of things only in order to become immediately engulfed again. Thus even profane reading is subject to a necessary speed or rather critical moment which the reader must not forget at any cost unless he wishes to go away empty-handed’ (Benjamin, 1933:68). Language was central to Benjamin’s philosophical background and work. In a work on Immanuel Kant which remained unpublished during his lifetime, he wrote that ‘Philosophy is absolute experience deduced in a systematic, symbolic framework as language.

Absolute experience is on the view of Philosophy, language-language understood however as systematic symbolic concept' (Benjamin, 2004:96).

There is no disagreement that we are living in a period of great digitalization and visualization, where new terms as cyberspace, technoculture, virtual realities, virtual identities, cybernetics and many more occupy our lives (Gillis, 2002:202). The new media theorist Lev Manovich has described it as a "digital attack" which has rendered the traditional concept of medium unable to explain our post-digital and post-net culture (2001:5). The mass of information and digital material that surrounds us seems like Benjamin's perception of the metropolis of the 19th century. This parallelization is interesting as many studies use the term 'technopolis' to explain our condition. Its best characteristics are also its greatest danger. Too many stimuli, too disparate and too intense, always to the point of turning into a 'shock' (Moretti, 1996:124). We live in an exceptionally visually intense and media rich world, which has also led some of the most 'cutting edge humanities research to take up questions of visual and aural culture and emotions' (McPherson, 2009:120).

Other theoreticians who interpreted the rise of information society and new media have mentioned that people today are provided with everything they need in order to reach decisions with full knowledge of the case, and no one can do that on their behalf (Castoriadis, 1984:257). Marshal Berman, a thinker who has clearly been influenced by Benjamin, wrote in his famous book *All that is solid melts into air* (1982) that 'to be modern is to find ourselves in an environment that promises us everything but at the same time threatens to destroy everything we have, everything we know' (Rollason, 2002:279). We live in a period of 'multimedia revolution' which means that any type of material can be transformed to digital information and then can be stored, accessed and controlled by the same equipment, which is,

obviously, the computer (Lunenfeld, 1999:xvi). To sum up, the emergence of computing has affected even those 'who do not wish to have anything to do with it, and reaches deep into the furthest areas where least you might expect and forces us to reexamine its identity and to reread its own history' (Toschi, 1996:195).

For Manuel Castells (2006), though, the important thing is not so much knowledge and information. As it is commonly described, our society is a society of information or knowledge but for Castells this was always the case. What is important is the networked way that our societies have now been organized due to technological advances. Unfortunately there are those that either enthusiastically support the changes or, on the other hand, those who feel threatened by all this expansion. Their arguments are deflected and if we turn them over they sound similar in different directions. Either our networked condition is the fulfillment of any human capability or it is the oppression of it. What is important, however, is that we 'occupy the tools to master our own condition with all the potentially destructive or creative implications of this capacity' (Castells, 2006:5). Something similar has been written from Carlo Ginzburg commenting on Benjamin's *Theses on the Philosophy of History* (1940): 'the potential self- destruction of humankind has been for the last half century a technical possibility' (1994:60).

According to a pioneer of information science, Joseph Weizenbaum (1923-2008), where people used to say 'it is written to the book now they say the computer tells us' (Brody, 1999:148). However, thinkers like Castells would not find this very promising educationally: the most important thing is not to bring a computer into every household and school. Rather we should instead ask where, by whom, for whom and for what reason all these technologies are being developed (Castells, 2006:6). During the 1960s, the period in which the explosion of computing and new

media started to emerge, the American sociologist Daniel Bell (1919-2011) argued that the ‘principle task of humanities was to defend against the increasingly powerful armory of intellectual techniques (game theory, cybernetics, simulation) at the disposal of technocracy’ (Bell, 1966:4-6). For Frabetti, the field of DHs is the best place to understand the interaction between technology and humanities and protect humanistic values in a highly technical world. Based on a philosophical analysis starting from Immanuel Kant and extending to Jacques Derrida, she discusses the position technology in the humanities by arguing that the concept of technology has always been connected with the concepts of knowledge, language and humanity (2011:3).

For Noah Isenberg, Benjamin is particularly important in which focus on memory has become almost a worldwide cultural obsession (Isenberg, 2001:140) in an so-called age of information where we experience an intense proliferation of data, images and soundbites (Isenberg, 2001:150). For others, internet culture is full of transitional passages through the virtual arcades of its digital borderlands (Fornäs, 2002:6).

We can claim, then, that Benjamin is still with us. As Johanna Drucker, in a “Benjaminian” style, reflects on the ‘kaleidoscopic regeneration’ of scholarship, she mentions that ‘in a world in which an economy of excess has long displaced one of scarcity, scholarship will be an act akin to that of providing an expert commentary on the experience of walking through the Grand Canyon or the ruins of Pompeii’ (Drucker, 2013). It does remind us of the Baudelairian flâneur strolling around in Paris of the 19th century that inspired Benjamin. After all, ‘the flâneur and flâneuse today are fascinated forlorn figures lost in cyberspace, lost in hyperspace. Aren’t we all?’ (Gilloch, 2002:246).

In the next text we will develop the basic concepts of Benjamin's theoretical work which can be of any relevance to contemporary DHs debates; we will present the theoretical issues that DHs are facing nowadays; and finally we will make some suggestions as to how the new digital tools of e-research and electronic publishing could be of more use in studying the work of such a cryptic and complex author as Benjamin. Particular analysis will be based on what humanities are doing well or better than other disciplines which are reading, writing and publishing.

Walter Benjamin's theoretical work and Das Passagen-Werk

Benjamin was a prolific writer who drew inspiration from many sources; his oeuvre is comprised of contrasting topics ranging from Marcel Proust and Franz Kafka to hashish and children's fairytale stories. His controversial topics and his controversial style of writing kept him out of formal academic life and sometimes he faced financial difficulties during his life.

Walter Benjamin's most important project was by any doubt the PW which started in the late 1920s as a small essay on Paris that "would had taken only just few weeks" (Ferris, 2008:115). In the end, it remained unfinished as a pile of thousands of pages of manuscript. The PW was, as Benjamin himself said, 'the theatre of all his struggles and ideas' (Ferris, 2008:115) and the product of what Margaret Cohen calls the Parisian production cycle (1993:3): a cycle that was defined from his intellectual return to Marx's work and his efforts to combine them with psychoanalysis and surrealism (Cohen, 1993).

All the last episodes of his life - his suicide, the possibly lost 'final manuscript' that he was carrying with him, even the way that the now known 'work' was finally saved - has created a myth around the PW. What would have happened if Benjamin had survived? What if he would have been able to complete it, and in what form? Adorno, who was one of Benjamin's closest conversational partners during the period that Benjamin was working on his material, acknowledged once that if anyone could reconstruct PW then only Benjamin could have done it (Morss, 1989:57).⁴ However, we now have access to the work because of the editorial effort of one of

⁴ Letter of Adorno to Scholem 9 May 1949, V, pp.1072-1073.

Adornon's students, Rolf Tiedemann, who himself has argued that his edition is nowhere close to what Benjamin would have published.

According to Susan Buck Morss, 'Benjamin's major literary effort is not only unfinished; it is not a "work" at all' (1983:211); however, the fact that it is unconventional in its narrative structure due to 'the fact that the fragments can be grouped freely does not mean that the work does not contain a conceptual structure' (Morss, 1989:54). The PW cannot be read in isolation from other essays of Benjamin and specifically the works where he developed his theoretical ideas. Specifically, his philosophy of history was developed in the 'Epistemo-Critical' prologue to his *Trauerspiel* study (1928), the Convolute N of the PW and his last work, *On the Concept of History* (1940). Benjamin's ideas relating to technology can be found in works such as *One Way Street* (1928), *Little History of Photography* (1931) and the famous *The Work of Art in the epoch of its technical reproducibility* (1935/36) (MacPhee, 2005). MacPhee notes that those who see a cultural pessimism in Benjamin or a naïve optimism of technological progress are both mistaken. Benjamin was trying to reject the concepts of progress or decline, and instead wanted to 'elaborate an approach that would register the myriad range of possibilities latent in the contemporary condition of technology' (MacPhee, 2005:82). Despite the technological negativism of many of his contemporaries, he foresaw the progressive potentials of modern technologies and mass culture (Schwartz, 2001:1722). According to MacPhee, 'technology's reorganization of the visual has played such an important role in defining our contemporary cultural condition that it is easy to feel familiar with the conceptual topos of Benjamin's account of image reproduction even if unacquainted with its broader philosophical, theological or political commitments' (MacPhee, 2005:76-77).

For his project Benjamin organised the thousands of index cards on which he transcribed quotations and notations into 36 files or Konvoluts, and developed a personal system of cross-referencing in which he also gave to each file a key word or phrase as a title. Benjamin's idea of composing the PW as a work entirely of quotations ensures that the material within the collection can remain mobile and can be shifted at will' (Wizisla, 2007:32). What Benjamin was trying to achieve was a composition of a 'materialist philosophy of the history of the 19th century', according to Rolf Tiedemann (Tiedemann, 1999:929) and the way he arranged his material was less as a fixed historical record and more as an attempt to rejuvenate contemporary thinking by unfreezing the past (MacPhee, 2005:86).

A conventional understanding of the PW could be as an urban history of Paris, but Benjamin saw architecture as the hermaphrodite field where 19th century engineering and art, two different and isolated practices came in fuse together (Morss, 1989:126). Benjamin did not select an urban environment by chance: he was already fascinated with the urban environments of cities, something which is obvious from some of his other writings such as *Berlin Childhood* around 1900. However, there were deeper aims to this work, which led Benjamin to connect so strongly with it that at some point his whole life and what he had previously produced were coming into connection. His aims were at the same time ontological and epistemological (Rosen, 2003:2) because 'he was also working through the conceptual linguistic and interpretative means by which he and his generation might understand culture and society' (Rosen, 2003:2). He wanted to capture the spirit of the 19th century but at the same time he was developing the medium in order to achieve this. As he wrote: 'the new dialectical method of doing history teaches us to pass in spirit with the rapidity and intensity of dreams- through what has been in order to experience the present as a

waking world to which every dream at last refers'. He interpreted concrete historical phenomena such as architecture and photography in order to create a historic-philosophical construction (Schwarz, 2007:252) of 19th century.

Especially after the postmodern critique that traditional historiography experienced, it seems that 'Benjamin's questions, topics and method can help us take cultural history in a new direction-toward the visual' (Schwartz, 2001:1722). Years after Benjamin, a historian strongly connected to the new wave of historiography introduced to the historical community the term historiophoty as a new way of doing history with visual images cause 'some information about the past can be provided only by visual images' (White, 1988:1194).

Benjamin, in the PW, focused on the everyday and tried to create a historical methodology in order to study it and suggest that what is and indeed what has been might contain the possibility of transfiguration (McCracken, 2002:147). His hidden aim was political because he wanted to resist the official tradition which declares that that history is written by the winners: rescuing and presenting history's discarded and forgotten objects is also a way to preserve also the view of history's victims (McCracken, 2002:155).

Benjamin believed that any cultural object carries with it a meaning and historical significance, despite any aesthetic judgment about its value. In his famous quote about the Parisian rag picker, Benjamin said: 'Here we have a man whose job it is to gather the day's refuse in the capital. Everything that the big city has thrown away, everything it has lost, everything it has scorned, everything it has crushed underfoot he catalogues and collects. He collates the annals of intemperance, the capharnaum of waste. He sorts things out and selects judiciously: he collects like a

miser like a miser guarding a treasure, refuse which will assume the shape of useful or gratifying objects between the jaws of the goddess of Industry.’ He preferred to uncover the secret significance of such untimely things in the present, to ‘actualise’ them by identifying and igniting their explosive, incandescent potential’ (Gilloch, 2002:5). The PW was also Benjamin’s effort to contend, regarding artifacts of the past that, ‘the charm they exert on us reveals that they still contain materials of vital importance to us – not of course for our architecture, but they are vital for our perception, if you will for the illumination of the situation’ (Benjamin, 1999:458).

Benjamin’s notion of the past was not as something which is superseded by the present and which therefore in a sense explains it, but both are locked in a complex interplay in which what is past and what is present are negotiated through material struggles (Pensky, 2004: 180). The historian should recognize the reappearance of the past in the present and this remembrance alone can give meaning to the present (Kirst, 1994:518). Benjamin was seeing the preservation of memory because during his time modernity was threatening to repress history into the cultural unconscious (Osborne, 1995:137). If ‘memory creates the chain of tradition and historiography is the record kept my memory the shattering of the chain, the breakdown of memory will set off a historiographic crisis’ (Osborne, 1995:137).

The way that Benjamin imagined the recollection of the past events, was and still is extremely unconventional and mystical. Central to this is his concept of the dialectical image. He believed that the mystical monads where past and present merge could be revealed by dream images and historical materialism. ‘Continuous relationship in time with which history deals, are superseded in Benjamin’s thought by constellations in which the past coincides with the present to such an extent that the past achieves a “now” of its recognizability’ (Tiedemann, 1999:942). According

to his philosophical view ‘although every past and present is synchronic with certain moments in history, history itself is the diachronic dimension that allows the legibility of the moment’ (Santos, 2001:181) or put it more simply from Graeme Gilloch, “dialectical image is the moment when the forgotten is remembered” (1996:114). Benjamin criticized Leopold von Ranke’s⁵ positivistic approach and he disagreed with any idealistic belief of a transcendental truth accessible to all times. In contrast, ‘historical meaning is transient depending not so much in the past as on the present on the real state of affairs. What we do or not do, create the present, what we know or do not know creates the past’ (Wolin, 1982:213).

Something similar is also claimed by Alan Liu, a scholar working closely with projects and theoretical works in DHs. For Liu, humanities (and here we would add of course digital humanities which can do it in a better way) should hybridise the past and present, an activity which is important in a society that bases its prophecies on the present while caricaturing, stereotyping or excluding the past (Liu, 2004a:301). The purpose of DHs is to do “re-search”, which means for Liu that they need to recover and discover history in a quest of remembrance, reflection and judgment in a ‘world that the “known” pales in significance to what is unknown within the known’ (Liu, 2004a:306).

The nature of text is also central to Benjamin’s theory. According to Jennings, “importance for Benjamin do not have the words themselves but their placement in the map of a text that give rise to their potential revolutionary power” (2006:18). According to Irving Wohlfarth, his approach to the texts is one that ‘neither dissolves the resistances of the text into the surrounding “life and times”, nor-blindly reacts against such historicism-fetishizer a myopically close reading of the text at the

⁵ Leopold von Ranke 1795-1886. German historian and major thinker of historicism.

expense of the exposure of its enabling context' (Wohlfarth, 1986:15). Benjamin's PW has an unconventional idea of text, and in a way he created his own idea of what today we could call a hypertext. His style of writing is related to the multitextual montage and a hybrid of texts and textual genres. The narrative structure in his texts points the way toward the polysemic simultaneity of connotations exhibited in postmodernism' (Kirst, 1994:521).

His way of seeing is dynamic and polycentric and he created what is called epistemologically constellations. 'Benjamin names it a 'dialectical image' or 'dialectics at a standstill', an instant of illumination in which the dreary newsreel of history suddenly snaps, freezes into a frame then burns away' (Sieburth, 1988:11). Benjamin developed this idea early on in his prologue of the Trauerspiel and later on in his more theoretical Convolute N of the PW, where he stated that it is an 'image that emerges suddenly in a flash and what has been is to be held fast as an image flashing up in the now of its recognisability' (PW, 473, N9,7). As 'in modern day visual communication, problems are constellated in groups by means of pictograms thus reducing complexity and pictorially configuring temporal and causal interrelationships' (Doll, 2011). For Jennings, what Benjamin was seeking was to create 'a textual space in which a speculative, intuitive, and analytical intelligence can move, reading images and the relays between them in such a way that the present meaning of what has been comes together in a flash' (Jennings, 2006:12-13).

George Steiner has said that what Benjamin tried to criticise, even from his first work,⁶ is the 'unworried dissociation between scholarly critical styles of analysis and the privileged, irreducibly autonomous objects of such analysis, a dissociation that is particularly damaging in respect of works of art and letters' (Steiner, 1998:21).

⁶ *The Origin of German Tragic Drama* (Ursprung des deutschen Trauerspiels)

A philosophical 'explanation' for this fragmented structure is given by Benjamin in the prologue of the *Trauerpiel*, where he writes that 'the value of fragments of thought is all the greater the less direct their relationship to the underlying idea and the brilliance of the representations depends as much as on this value as the brilliance of the mosaic does on the quality of the glass paste...the truth content is only to be grasped through immersion in the most minute details of subject matter' (Benjamin, 1998:29). He was particularly interested in the medium of photography, which he related to his quoting method because they had in common an 'ambiguous modesty which keeps quite and lets the other speak' (Abbas, 1989:58). This is described too in convolute N again where he exclaimed that his method is 'Literary montage. I needn't say anything. Merely show. I shall purloin no valuables, appropriate no ingenious formulations' [N1a,8] (Benjamin, 1999:460).

Epistemologically speaking, truth for Benjamin was more sensual and aesthetical rather than logical. The subject's relationship to the object and vice versa does not have a structured hierarchical relationship, but it is based on chance, construction, intuition and interpretation (Chalmers, 2005:56). As he wrote in the preface of the *Ursprung*, 'truth never enters into a relation and especially into an intentional relation. Truth is un-knowable and truth and cognition are two entities without relation to one another' (Kany, 1990:328).

The theoretical debates of digital humanities

Accepting the Roberto Busa Award at the Digital Humanities Conference at Nebraska in 2013, Willard McCarty mentioned that we have moved from the term ‘humanities computing’ to the ‘big tent’ of Digital Humanities, which contains information visualization, network analysis, facial recognition, GIS, topic modeling and various other techniques which have increased in popularity during recent years (Meeks, 2013). According to the contributions of Martyn Jessop (2004) and John Unsworth (2000), the tools from ICT have developed the seven⁷ pillars of research in humanities. This has led to a greater participation of universities and research institutes in the development of this promising interdisciplinary field. As Benjamin prophesied about the new media of his era, in today’s world digital humanities have a special role in helping humanities to reach out (Liu, 2012). The uses of digital tools have given an epistemological advantage to scholars and have achieved efficiencies of spread and scale (Dalbello, 2011).

Despite the wider popularity of DHs, there are still strong debates about their nature and scope. It is characteristic of DHs that a large part of this debate is taking place in peer-reviewed journals and personal blogs. Some of the issues are how aware the practitioners of digital humanities are of the dominance of technological imaginary or how much multicultural DHs are (Clavert, 2013). Recently Melissa Terras, a very active practitioner of DHs, mentioned in her blog that DHs ‘are too insular and are excluding those who want to partake init. The structures that have been built within the discipline preclude the type and means of research which we

⁷ These are: Discovering, Annotation, Comparing, Referring, Sampling, Illustrating, Representing.

claim to do. Issues of race, gender, ethnicity and class raise their heads' (Terras, 2013).

Some others criticise DHs for being too text heavy (Meeks, 2013). Others such as Gerben Zaagsma mention there is still a lot of progress that DHs and particularly digital history need to carry on, as many practitioners still rely on analogue materials that also give substance to a criticism about the loss of materiality and context (Zaagsma, 2013). In general, we could add that many practitioners in the field of humanities are unaware of how to use all digital resources and tools. Despite the fact that all of them use e-mail accounts, or save files online or download articles from JSTOR, they still neglect any type of interference with digital tools.

The reality is that we have a hybridity where scholars are relying at the same time on digital and analogue resources or they are using digital resources without the knowledge of further advantages of digital tools, such as text mining (Zaagsma, 2013). Is there a revolution after all or just an automation, asks James O'Donnell (2009). According to him, humanists should not rely on technologists to provide tools or, even worse, tell them what to do with them, but on the other hand the power of imagination needs a good understanding of what these tools can do (O'Donnell, 2009:102). Finally, for Patrick Juola despite any developments, DHs are still in search for a 'killer application' (Juola, 2006).

However, the most theoretical criticism of DHs is that they lack enough critical self-reflection and they should be kept in contact with their historical origins as well (McCarty, 2012). Just as Benjamin tried to analyse and capture the new technical media of his epoch through Marx's analysis of the fetishism of commodity, so too are there scholars from the field of DHs, such as Todd Presner, who question

DHs for their lack of critical theory and a fetishization of digital tools. We do not often reflect critically on the instruments through which we think of reality, as Pierre Bourdieu said (Fiormonte, 2012:61). The interesting part is that most of these critiques are coming from scholars who have participated in digital projects, as with Presner. Another example is that of the historian Tim Hitchcock, who has participated in the Old Bailey Online project, who argues that the advent of keyword search has been immensely liberating, but creates also what he calls an IKEA effect: that we are being led through a system to a particular conclusion without signposts or a map (Hitchcock, 2013: 18). Quoting the American philosopher Luis Mumford and his phrase that ‘minds unduly fascinated by computers carefully confine themselves to asking only the kind of question that computers can answer’, Hitchcock believes that scholars should be educated in using and searching digital tools but should also stay in touch and appreciate the knowledge and research questions of previous generations (Hitchcock, 2013:18-19).

DHs differ from old humanities is that they share a similarity with sciences: i.e., they rely heavily on tools. Practitioners often develop tools in order to answer preexisting questions, but in some other cases the new tools create new questions themselves and open new horizons (Scheinfeldt, 2012:57). At some point it is true that with all these new technologies we barely know what can be thought, let alone what cannot be thought (Presner, 2010:10)

For Alan Liu, the term ‘digital humanities’ or ‘computing in humanities’ soon will not have any reason to exist as these two terms will be integrated (Liu, 2004b). This is because protocols of knowledge reified in IT have entered humanities and also even the ordinary production work of the humanities such as reading, writing or browsing depend heavily on IT platforms and applications (Liu, 2004b:4). It is time,

according to Liu, for the humanities to move up and see themselves in the future as a technical profession like any other (2004b:9). The only way for the humanities to continue being relevant is to criticise the corporation monopoly of technique and to advance the claim that technique is not only a medium of progress but also of history (Liu, 2004a:312). They should insist on the humanity of technique, which means insist on its historicity and understanding it in comparison with other historical techniques (Liu, 2004b:10-11), something that programs like Transcriptions: Literary History and the Culture of Information that Liu has organized at the University of Santa Barbara, are trying to do.

In a similar claim that the intellectual challenge of computing is without precedent, McCarty has argued, in a way that Benjamin would have approved of, that ‘there are always precedents, ‘those things that they come before in time that we fashion into histories and so make the sense we require from them’ (McCarty, 2005:223). We should immerse and study the impact of this wondering machine (the computer) on scholarship, because the history of computing in humanities is our future, mentions McCarty in another article where he recalls his first encounter with computers in an academic environment back in the 1970s and early 1980s (McCarty, 2009). It is important for the participants-observers of research, as he calls the practitioners in the field of DHs, to study and interpret the past for the previous reason; however, this is not always easy because our view of the past is influenced by our present and especially our expectations for the future (McCarty, 2009).

In agreement with McCarty, Johanna Drucker believes that DHs is at the same time both a theoretical endeavor and an applied one. Tracing back the theoretical roots of DHs in the linguistic turn of philosophy in the early twentieth century, an analysis that brings back to Immanuel Kant (1724-1894) and of which Walter Benjamin would

have been part; Drucker mentions the theoretical borrowing of DHs from the then-emerging information sciences. According to her analysis, the pioneers of DHs were mostly interested not in analogies between organic bodies and logical systems, but in the intellectual power of information structures and processes (2009:4); despite the early on alignment with computational methods, the criticism that developed later on was unavoidable as there are always distinctive differences in the value system of both fields. For Drucker, ‘humanists are skilled at complexity and ambiguity something that computers are not’ (2009:7). The computer for example cannot answer the question of whether, for example, Jean Jacques Rousseau’s *Confessions* is a novel, a document of an era, a biographical portrait, a memoir or a historical fiction (2009:6). Faced with the threat of the old theoretical debates in the field of humanities disappearing and becoming irrelevant in the light of digital projects, under the pressure of digital protocols, digital humanists should try and challenge the efficiencies of digital tools through alternative projects, something that, for example the SpecLab at the University of Virginia has been trying to do (2009:7).

This tradition of Kant in the humanities and universities, and how it has changed in the last decades, is something that David M. Berry, one of the critical theorists of DHs, is trying to analyse. Berry does not deny the fact that knowledge has been transformed into information due to the use of computational techniques (2011a:18). The tradition of Kant is under threat, as ‘the digital assemblages that are now being built provide destabilizing amounts of knowledge and information that lack regulating force of philosophy which Kant argued that secures that institutions remain rational’ (Berry, 2011b:8). However, instead of taking a defensive stand it would have been more productive to think of the positive possibilities, such as collaborative thinking and more publicly open research. Computing offers humanities

scholars greater potential and a larger reach of their imagination (Berry, 2011a:22-23). Despite any suspicion, the methods and practices from computing do not need to become hegemonic, but on the other hand we need a humanistic understanding of them (Berry, 2011a:21). Relying on technology in a more decentred way we can ‘fill in the blanks in our minds and to connect knowledge in new ways will change our understanding of knowledge, wisdom and intelligence’ (Berry, 2011b:10). Berry finishes his analysis with the observation that, to a great extent, this is an avoidable condition because at all levels of society ‘people will increasingly need to turn data and information into usable computational forms in order to understand them’ (Berry, 2011a:26). A field in which we could easily understand Berry’s view is the new type of digital journalism.

The immense expansion of information technology, electronic production and digital distribution, especially in the nineties, have provided us with so much information and data that even DHs rely on bricolage and techniques such as remixing, sampling, modular writing and multiple never-ending contributions to the formation of a text (Papson, 2013:15). In some cases the scholar or intellectual seems lost in a world of hypertext, blogs and YouTube videos (Papson, 2013:11). However and despite the fact that a lot of work for the humanists is individualistic and source based (Genet, 1999:70), a benefit is that finally scholars’ work has become less individualistic more interdisciplinary, and thus it participates in the virtual community (Papson, 2013:5). However, both the ‘well read’ and the ‘well informed’ can benefit from serious engagement with each other (Liu, 2004a:312). Concluding, we should definitely agree with Deegan and Sutherland that mention that, apart from the fact that scholars need a new digital literacy in common with most of the rest of the world of employment, they also need even more so to comment on the effect that these tools

have on their work, how they affect the material with which they work and lastly how technology participates in creating meaning (Deegan & Sutherland, 2012:2). Language is no longer the sole distinctive characteristic of our technologically developed societies, but now it has to coexist with code (Hayles, 2005:16).

On the other hand, in a field which is highly critical of computing techniques, Tanya Clement believes that, despite any critiques that the digital tools are very objective leaving outside any human side, she supports the idea that computers can definitely do some things better than humans, such as for example illustrating and sorting quantified data. However, ‘understanding why a pattern occurs and determining whether it is one that offers insight into a text requires technologies of self reflective inquiry’ (Clement, 2013). Stephen Ramsey is also one of the advocates of computing tools. In his influential study on algorithmic applications on texts he says that algorithmic transformations can provide alternative visions that give rise to different readings (Ramsay, 2011:16). Discussing Hans Georg Gadamer’s hermeutic approach, Ramsay suggests that data and visualizations that computers give cannot offer a shift to ‘a redemptive worldview’ (Ramsay, 2011:9). Nonetheless, despite the fact that someone can challenge the interpretation of facts or even the factual nature of evidence, facts nevertheless permit or deny this judgment (Ramsay, 2011:6).

Discussing DHs more generally, Willard McCarty suggests that what happens when we apply computing tools in humanities is that we achieve an interaction both, as well as a way of thinking with and against the computer (McCarty, 2002:104). Digital processes give much finer error control than analogue, according to Katherine Hayles. Nevertheless, analogue processes have also their own strengths: for example, they can transfer safer information from one medium to another and they can encode in more diverse ways (Hayles, 2007:101).

All these changes have a huge impact on how we read and write. According to Ian Lancashire, every language tool that we have made, from oral-formulaic metre to the digital workstation, speaks to our species' frustrations with native cognition in language production, that is, unassisted speaking, writing, and reading' (Lancashire, 2010:39). Katherine Hayles, in her work with the imaginative title *My mother was a computer*, claims that 'the mother's wire that haunted reading has been supplanted by another set of stimuli: the visual, audio, kinesthetic and haptic ones emanating from the computer' (Hayles, 2005:4). In her analysis Hayles, despite her understanding of Benjamin's idealistic perception of language in his essay *The Task of the Translator* (written in 1921, published in 1923). There Benjamin develops his idea that all languages share something in common and it 'is the task of the translator to release in his own language that pure language which is under the spell of another and to liberate it' (Haynes, 2005:113). However this philosophical expectation cannot really help us with the 'complex dynamics by which intermediation connects print and electronic text, language and code, "original" and translation, the specificities of particular instantiations and the endless novelty of recombinations' (Hayles, 2005:116).

Hayles uses the concept of intermediation in order to analyze the impact of the materiality of the mediums in literature. According to her, the book has a common with a computer program the fact that both are technologies designed to change the perceptual and cognitive states of a reader. The difference, however, rests on the degree to which both of them can be perceived as cognitive agents (Hayles, 2007:106). The book stores the cognitions that the author wants to transfer to the reader when the latter decides to activate it. This is when the 'complex transmission

process between writer and reader mediated by the specificities of the book as a material medium' takes place (Hayles, 2007:106). What computers have brought, and this is something really new, is that the words can change place, giving different versions of the text each time. In conclusion, despite the change of mediums (orality, writing, mechanical print, electronic textuality) we do not leave behind the accumulated knowledge embedded in genres (Hayles, 2007:106). Now that the user can change the text on the screen, the means of disseminating a message are now much like those of other authors. However, we still need time in order to evaluate whether it is a better situation now that we could all be authors of apt and accurate representations (Kress, 2005:21).

One of the most influential thinkers and practitioners of DHs is also Franco Moretti, who has developed the idea of distant reading and the use of quantitative data in literary analysis. Moretti, an enthusiast of 'Culturomics' but at the same time aware of the limitations of digital tools, agrees that today 'the width of the corpus and the speed of the search have increased beyond all expectations and we can do things that would have been a dream for previous generations' (2013:212). Moretti has brought in a new methodology and technique of distant reading and of quantitative data in literary history, bringing something from the natural and social sciences, which has also influenced DHs (Moretti, 2005:7). The usefulness of quantitative data lies in the fact that it is independent of interpretation and neglects previous theories; however it is itself challenging because it often demands an interpretation that transcends the quantitative realm (Moretti, 2007:30). Patrick Bazin calls it 'metareading', which is becoming a new driving force of culture (Bazin, 1996:154). The reader-user of resources on web feels like reading a never-ending book; 'the text is losing further its linearity and is explored like a map, the virtual image is gaining in

temporality, exhibits processes and is becoming discourse' (Bazin, 1996:165). With webpages there is no pre-given, clearly discernible reading path, so that we do not speak of readers but visitors (Kress, 2005:9).

Katherine Hayles examines studies which suggest that this hyper-reading also affects the way that the brain functions. Despite the fact that, in our digital environments, hyper-reading is something common, Hayles, drawing from neurological and cognitive studies, claims that this type of reading does not really improve the cognitive function of the brain. She also mentions Benjamin's *Work of Art in the Age of Mechanical Reproduction*, because Benjamin was one of the first (together with Siegfried Kracauer) to mention that mass culture, and particularly cinema, could make distracted viewing a habit (Hayles, 2012:62). However, she does not really underestimate the importance of machine reading, particularly in the field of DHs where the 'results of algorithmic analyses refine, extend and occasionally challenge intuitions about meaning that form the starting point for algorithmic design' (Hayles, 2012:72). Separating human and machine reading does not help us to see their interactions or to understand their complex synergies either (Hayles, 2012:72).

Talking about the domain in which Walter Benjamin was preeminent in his period, literary criticism, Matthew Kirschenbaum mentions that it is a field of application of machine reading and data mining. According to him, 'part from being radical from traditional humanities, not reading and distance reading in fact they have their roots in long standing habits and practices of reading and textual communication' (Kirschenbaum, 2007). Scholars in DHs have copiously studied many approaches to reading: new and old or a mixture of both, such as symptomatic reading. Reading, after all, is not at risk but in the process of being remade both technologically and socially (Kirschenbaum, 2007). The way that texts are now being

digitally edited and published has affected the way that we read, and the ways that the readers find information or acquire knowledge has created new approaches such as symptomatic and surface reading (Best & Marcus, 2009:3). The possibilities that the World Wide Web offers to the humanities are immense and are still being studied. Johanna Drucker, for example, mentions the new directions of interface theory. She argues that the new visual environments change the scholarly work in a way that ‘the linear finite conventions of print media can be changed for the constellationary, distributed, multifaceted modes of digital media’ (Drucker, 2011:2). In the graphic environment of the Web as she describes it, the activities of authoring and reading have changed. The user is plugged in a scene of infinite distractions where he constantly is offered alternative paths (Drucker, 2011:4). Our cognition has also changed as ‘we make sense of one piece of information and experience in relation to another, stitching fragments of what are graphically related elements together into a narrative’ (Drucker, 2011:4). Drucker’s description is really complex and speculative; however, her main point is that the usual ways of reading and interpreting have changed with visualization tools and coloured graphs. Curiously, Benjamin wrote about distraction as a way of seeing which emerged from the 19th century. As Alan Latham informs us, Benjamin analyses distraction in both a negative and positive way. The first is described in *Some motifs in Baudelaire* (1939), where he argues that the urban crowd is a distracted mass in which the individual, buffered by a multitude of stimuli, is unable to take hold and learn from his or her experience within the crowd (Latham, 1999:463). His second, positive interpretation comes in *The Storyteller*, where he mentions that the distractive way of looking and experiencing the world is the one that the ‘eye does not act to hold external objects in a firm

contemplative gaze but only notices them in passing and while also keeping a series of other objects in view' (Latham, 1999:463).

One of the biggest if not the biggest enterprise of DHs is the digital – electronic publishing of critical editions. From the first eclectic editions to the more versioned editions, the readers can engage in multisequential reading (Schreibman, 2002:285) and can be presented with the richness and ambiguity of authorial intention (Schreibman, 2002:289). With the electronic book it is not reading that has become easier, but its manipulation. We can search more easily for information from the previous printed versions, and this searchable representation of a text is what Susan Hockey calls 'live text' (Hockey, 1999:19). The concept of intertextuality does not find application, however, for Geoffrey Nunberg, who argues that the individuation of texts brings many problems and that the term *débordement* (inspired from French philosopher Jacques Derrida) is based on an anachronistic sense of the text carried from the experience of print (Nunberg, 1996:106). Mentioning Walter Benjamin's the essay *The Storyteller* (1936), Nunberg reminds us that it was Benjamin sixty years earlier in this essay that foresaw the impact of the extension of the press, which brought the emergence of information from the media as another form of communication which is 'understandable in itself', which is not related in the same way with knowledge. Benjamin wrote that 'there is hardly a gainfully employed European who could not, in principle, find an opportunity to publish somewhere or other comments on his work, grievances or that sort of thing' (Benjamin, 2007:232). It sounds as though Benjamin had written it today, when today electronic tools allow more people to become writers, so that there are more writers than readers. Nunberg mentions in particular that at present information is something which can be measured whereas knowledge is something we regard as holistic. Information gives an

impression of perspectival objectivity that gives us its content in the ‘view from nowhere’, and despite its claims of autonomy and objectivity it is less well adapted to support the semantic properties that reading needs (Nunberg, 1996:13).

On the same famous essay Scott Lash mentions that Benjamin was talking about the age of information based on facts; a process that created narratives from newspapers, that were of no use tomorrow dully located in a temporality of ‘the now’ (Lash, 2002:134). Benjamin foresaw in this essay the closure of classical narratives and the emergence of an ever-extending and never-ending web of stories. As we have already seen, we have moved to a postmodern age of information where there is an even more fragmented web of short durée narratives (Lash, 2002:134).

For Alan Liu, in order to understand electronic publishing and the enrolment of arts and humanities in the discourse network 2000, we need to research the cultural impact as well as the historical origins of the transition from an industrial to a post-industrial age (Liu, 2004c). Liu, in creating a social history analysis of the relations between the epochs of industrialism and post industrialism, mentions that the idea that there are breaks in epochs is too shallow (Liu, 2004:71). The three characteristics of this discourse, that Liu has taken from the important theorist Friedrich Kittler (1943-2011), is that it is as transformable as possible, autonomously mobile and automatic (Liu, 2004:57-58). He is talking about the contemporary nature of the author as a post-industrial producer who relies on institutional and managerial encoding structures that ‘separate content from material instantiation or formal presentation’ (Liu, 2004:58). It is accepted today that the majority of information today is encoded and transferred through XML schemas and standards, giving us the ability to say anything to anyone quickly. However, for Liu, the academy needs to refract this ability within the values of academic knowledge which is also ‘historical,

philosophical, social, artistic and public (non-proprietary) diversity-for example the ability to say anything to anyone fully, richly, openly, differently, kindly or simply slowly.’ (Liu, 2004c:52). Together with Willard McCarty, Liu mentions that we should not be unaware of the historical development or archaeology which can reveal the ‘the surprising bandwidth of connections between the present and the past’ (Liu, 2004c:71). The previously mentioned idea of the author as a post-industrial producer by Liu brings to mind Benjamin’s text *The Author as Producer* (1934), in which Benjamin writes in a way similar to Liu’s approach, suggesting that ‘rather than asking what is the attitude of a work to the relations of production of its time it would have been better to ask what is its position in them’ (Benjamin, 2005:770). Through this, Benjamin wanted to suggest that the function of the work is within the literary relations of production of its time or the literary technique of works (Benjamin, 2005:770).

For one of the theorists of hypertext, this new ‘information technology as text composed of blocks of words and moving or static images or sounds, linked electronically by multiple paths, chains or trails in an open-ended web gives to the readers the opportunity to take different paths. Hypertext then is better described as multisequential or multilinear reading rather than nonlinear (Landow, 2000:154).

The new technologies have also emphasized the visual potentialities of writing and reading. Writing started first and now reading is following, as Florian Brody mentions. Comparing the medium (text) with memory, Brody reminds us that preliterate societies kept the ‘text’ in the realm of memory, inside people’s heads. With the invention of writing, the text moved to the manuscript and later the technology of printing made it an exchangeable commodity (Brody, 1999:142). For Brody, we lose something from the electronic medium which is that, previously,

books were the conveyor of memory rather than of messages. For example, we might argue that when we open an old book and we see the handwritten marginalia, is like an awakening of the past as when we visit our childhood room. Unfortunately, as text becomes more easily manipulable in electronic form, the differences between primary and secondary text vanish and the marks of memory become blurred, because they ‘eliminate traditional notions of dimensionality, leaving text to float in an electronic matrix.’ (Brody, 1999:144). We want computers to satisfy our utopian demand for an eternal storage of our memories, even given the danger that this might diminish our ability to develop our internal memory systems (Brody, 1999:143). Once more there is also here, remembering Benjamin again, ‘slippage and connections between old and the new’ (Jewitt, 2005:327). The new digital texts open up and offer options for the reader about where to start reading the text. In 2009, Allen H. Renear, predicted how reading skills will be in 2019. According to him, narrative prose will still be around; however reading practices will become increasingly strategic and supported by enhanced literature and ontologically-aware tools (Renear, 2009:832). However it is not the first time that such an optimism goes unfulfilled and there are realistic reasons for this such as the fact that print culture is still very strong and in many terms even more accessible and helpful than the digital. For Drucker, ‘the “book” is not anymore self identical, static or fixed, than any other artefact that provides a constitutive reading or response’ (2011:18). As the printed book was a site of mediation, forming communities of exchange, this is where the future should also lead (Drucker, 2011:19).

These changes have sometimes been received with a spirit of cultural pessimism because, according to Gunther Kress, the distinct cultural technologies for representation and for dissemination have become conflated, so that the decline of the

book has been seen as the decline of reading or writing and vice versa (Kress, 2005:6). Kathleen Fitzpatrick argues that, despite the arguments of postmodernism about the 'death' the author, authorship is still alive. It has merely evolved in different ways, for example into the use of blogs. Practitioners in DHs have also relied on blogging and micro-blogging, such as or Twitter as a digital backchannel of communication among the DHs community, as recent studies have shown (Ross et.al.,2011). Today, says Fitzpatrick, scholars tend to rely more on commenting, linking and versioning, which together produce texts 'that are no longer discrete or static but live and develop as part of a network' (2011:67).

Fitzpatrick also argues that book reading is still a lively experience for her. As she picks up a book, she says, she has the 'entire text in her hands all at once and she can do with it anything she likes' (2011:63). Franco Moretti too is trying to offset the reactions to the declining of reading and books with his quote that 'books survive if they are read and disappear if they are not' (Moretti, 2007:20) and this does not have to do some much with a change of medium but with a more complex net of cultural and social relationships.

A digital edition of the PW?

In a letter to his friend Karl Thieme, Benjamin wrote:

‘For someone whose writings are as dispersed as mine and for whom the conditions of the day no longer allow the illusion that they will be gathered together again one day, it is a genuine acknowledgment to hear of a reader here and there, who has been able to make himself at home in my scraps of writings, in one way or another’ (Leslie, 2007:146).

It is true that many ‘Benjaminians’, as Noah Isenberg (2008:36) somewhat ironically calls them, are trying to publish as many facsimiles of Benjamin’s manuscripts as possible. For example, in 2006⁸ the Berlin Academy of the Arts published a catalogue of the exhibition of Walter Benjamin’s archive which belongs to the institute. Even if it is impossible to publish in print the roughly 12,000 documents that Benjamin’s archive includes, and despite the efforts of the editors-archivists to give the reader a sense of looking over the back of Benjamin, the book took reserved critiques (Isenberg, 2008 & Conrad, 2008). Elena Danielson argued that despite its disconnectedness the book manages to give us the importance of unfinished writing and the importance of the ‘ephemeral nature of manuscript fragments one in which texture and image convey meaning beyond the words themselves’ (Danielson, 2009:231). Jeffrey Mifflin argues, that despite the sensation that his manuscripts transmits, the editors are silent about the rest of the material and the organization of the book tires readers with too much of ‘flipping back and forth’ (Mifflin, 2008:553).

⁸ The English version appeared in 2007 (Verso) and it was translated by Esther Leslie and it is slightly different from the German one.

Lately too, the art historian and curator Nikola Doll published some facsimiles from Benjamin's notebooks from the period that he was working on the PW (Doll, 2012). However, we are really worried about what the point of all this is, particularly in a period of e-publishing. As Peter Shillingsburg has said, especially when we want to understand the genesis of a work printed editions are definitely not suitable (2006:18).

Electronic publishing, as was mentioned at the start of our essay, is one of the main changes that our technological world has brought in humanities and of course DHs. Christine Borgman has questioned how much is the new situation 'a revolution or an evolution or a hyperbole and a deep restructuring of functions and relationships' (Borgman, 2007:76).

Electronic publishing is a field in which DHs have a really impressive contribution with many of digital scholarly editions. Although digital editions raise many issues, for example issues of authenticity or completeness.

Texts are constructions of documents and to edit a text means to construct it; this presupposes that this construction is a product of criticism. Jay David Bolter, discussing remediation, suggests that, in order to overcome this conflict between old and new media, we have to accept that we cannot neglect the past experience of older media. For example, since the electronic version justifies itself by granting access to the older media, it wants to be transparent: something that, as we know, is not technically possible because seeing, for example ,a painting in person and on the computer screen cannot be the same experience (Bolter, 2000:66). Dino Buzzetti has tried to overcome all the problematic by giving a very positivistic and concrete definition that, however, does not explain much. According to his definition, 'the task

of a digital edition is an attempt to match the computational model of text reconstruction and textual criticism on the one side and on the other with the procedures and methods of text analysis and interpretation' (Buzzetti, 2002:77).

In digital editions there is a whole ongoing debate about which elements the editor should capture. Is it the authorial intentions, as it happens with the eclectic editions, or we should focus more on the social process of creation of a text which includes many other factors aside from the intentions of the author? The divide between textual criticism and cultural criticism is still present, and the 'theoretical purity in unedited, unreconstructed texts that is comforting to editors' (Robinson, 2000:13). However, for Robinson, editors should help readers to find their way through electronic editions which are not only a tool for storing vast amounts of data but how they will present this to the reader (Robinson, 2009:50). Texts, after all, are not stable entities, and probably one of the central goals of DHs is to publish an authenticated text from the cultural heritage on to a digital platform (Hillesund, 2011:151). Even if digitisation of older printed books helps us to re-imagine the past, the transformation from the printed page to the digital always leaves something out (Mussell, 2012).

Julia Flanders also mentions the importance of image in the world of internet, something which has also affected the digital editions. The facsimile reproductions of manuscripts, for example, might capture the attention of the reader, but they also have limitations in terms of usability and accuracy (Flanders, 1995). However, it is in a sense revolutionary that today an unprecedented number of users have access to images of manuscripts that before were locked in libraries and museums (Smith, 2004). Because of this, readers have a more democratic sense of a text but also its extra-textual elements.

Peter Schillingsburg believes that new critical editing of digital editions has abandoned any search for lost archetypes or any ideals of authorial authenticities. According to his opinion, new critical editions, most of them digital, have shifted attention from the author's intentions to the reader, or from intention to reception (2010:168). This is particularly because, in contrast with printed editions, 'editing in the electronic world is a task that cannot and should not end with one project vision of the product but with a constantly changing with maintenance, repair and replacement of parts' (2010:181). Schillingsburg is in favour of electronic editions because they contain better presentation and better interface designs, which can help readers to achieve historical readings. 'We have now greater opportunity than ever to provide readers with particularized and contextualized editions' (2010:180). It is also certain, mentions Paul Eggert, that computer can assist us and bring to our attention information and material for which we would never have thought to look (2010:201).

Luca Toschi has written that a text written in word processor has different dynamics which needs to be kept in mind from the future editor. The great difference today is first of all the binary logic of computers which, even if we write a word, for example mountain, or say it aloud or draw a picture of a mountain, will store it in its memory with the same binary logic (Toschi, 1996:194). With electronic editions we can present the process of creation of a text, something which is not possible in print because of problems that emerge from the non-coincidence of the time and space of composition with the time and space of narration (Toschi, 1996:201-202). However, this is easier with the help of an electronic edition; although it is inconceivable to reorganise the material in print, it is something that can be done for an electronic text, where a single word can take part in many different systems (Toschi, 1996:203). Interface also plays an important role because, based on what is provided beneath it,

the user can interact with the text, commentary and ancillary material (Vanhoutte, 2010:120).

However, there is not enough talk and total absence of Benjamin's concept of authenticity and aura. The danger with digital data is that they change the concept of authenticity because they can easily be changed, and in order for someone to notice it needs a lot of work (Deegan & Sutherland, 2012:161). Textual reliability in the electronic environment brings major questions of authority and integrity forward even more, because maintaining and ensuring the authenticity and continuing reliability of electronic editions is not trivial, and requires a lot of financial resources as well as technical expertise (Berrie et.al., 2006:275). As Benjamin wrote about photography, it removes the objects from their specific existences in space and time (Latham, 2004:415). The ontological difference with printed texts is that digital texts do not exist as whole and coherent volumes, but as organised streets of binary code. Our computer screens organise and display this data as images of printed characters only for our convenience and for the machine to perform an operation on that text it must first be translated into a string of ones and zeros (Latham, 2004:415-416). What we see on a computer screen is not a text but 'a computer artefact and an encoding and visualising of a binary flow of data as ink on paper is not a text till the material medium can be understood to be a document' (Eggert, 2010:202). Electronic tools and archives are not just devices designed to increase the efficiency of traditional research, but also create a new demand for critical reading. The hypertextual links from the search engine to the original allow for a synchronic and non-linear reading (Latham, 2004:424) which shows that electronic publishing does not mean the end of reading, as some purists argue, but on the contrary a new critical textual reading (Latham, 2004:424). The reader can now be more active and invent in texts something

different from what they intended: they combine their fragments and create something unknown, a plurality of meanings (De Certeau, 1984:169).

For Paul Eggert, who coined the term, ‘work site’ is the place on the internet that activities of preparation, gathering, encoding, comparing, presenting and interpreting materials relevant to the work being edited (Eggert, 2010:201). Despite the fact that materiality means different things in the analogue and digital domains, the notion of text has not changed in line with technology (Eggert, 2005:425). Eggert, influenced by the negative dialectics of Adorno, argues that the representation of texts will always remain in process and incomplete as long as the work remains under the human eye (Eggert, 2005:430). Computer analysis and presentation of texts will always remain incomplete and perspectival; this is why rather talk for an ontology is better to discuss the phenomenology of texts (Eggert, 2005:429). It is probably pointless to think in order to build a digital edition of what the user wants; rather we should concentrate on what kind of relationship with the text we should encourage (Flanders, 1995:302).

In his analytical and precise article Hans W. Gabler suggests how the scholarly digital editions of the 21st century should be. Certainly at present, and probably also in the future, readers rely more on printed editions for reading; however, in order to study or do research they may prefer the ‘digitally explorable knowledge sites dedicated to multifaceted historical, philosophical, cultural and literary research and criticism’ (Gabler, 2010:43). However, printed editions have already developed a successful tradition, something that also explains why many digital editions are spill-overs from the print medium (Gabler, 2010:48). A bigger difference is that, due to their materiality, printed editions cannot establish a relational

dimension, and they depend in stimulating the reader's imagination and memory (Gabler, 2010:54).

The utopian belief and aim that what edited works have already presented to us, or what they should present to us, should be pure and faultless is impossible because of the 'epistemological dimension of the voice through which texts are articulated: that is the voice of human language that lives through the empowering energy of semantic multi-valence' as Gabler beautifully explains (2010: 54). Something similar, impressively enough, was also argued by Benjamin in 1932, when he wrote that 'language has unmistakably made plain that memory is not an instrument for exploring the past, but rather a medium. It is the medium of that which is experienced, just as the earth is the medium in which ancient cities lie buried. He who seeks to approach his own buried past must conduct himself like a man digging. Above all, he must not be afraid to return again and again to the same matter; to scatter it as one scatters earth, to turn it over as one turns over soil. For the "matter itself" is no more than the strata which yield their long-sought secrets only to the most meticulous investigation" (Benjamin, 2005:576).

Peter Robinson also discusses the many and different approaches to digital editions expressed by different scholars (H. W. Gabler, E. Pierazzo, P. Eggert, R. Siemens). For Robinson, the digital medium is perfectly adapted to the enactment of editions as an ever-continuing negotiation between editors, readers, documents, texts and works (2013:127).

Of course, all these have a practical and realistic side as well as a theoretical and speculative. The World Wide Web offers possibilities that even now have not really explored. We still have not managed to understand how 'the relations between

texts and commentary are coded so that we can follow threaded conversations, semantic webs of networked references and a shifting balance between primary and secondary texts' (Drucker, 2011:16). Interpretation in the electronic space is n-dimensional; that means 'at any point in a scholarly text an infinite number of interpretative lines can be extended as lines of inquiry, reference, contestation and debate' (Drucker, 2011:16).

The digital environment has also changed the concept of scholarly publications, which are now more open and interactive. Johanna Drucker mentions all these changes of scholarship. She argues that 'current scholarships' foray into links, blogs, entries, tweets and wikis is just the tip of an emerging iceberg (Drucker, 2013). The notion of author also will change, and it may come to be related to writing metadata or to shaping a content model, a schema in XML or a database model (Drucker, 2013).

Scholars can now go even further beyond the limitations of printed editions, and they can now more effectively represent some complex relationships among complex editions (tables of concordances) and interpretations of texts (critical apparatuses) (Romanello et.al.,2009:156). Discussion of the digital scholarly editions of the 21st century tries to show how dependent editing and text are on their material support and historical context. The major questions about a text are when and where. To see the 'text fundamentally as a function of the document helps to recognize afresh that in all transmission and all editing, texts are and if properly recognized, always have been constructs from documents' (Gabler, 2010:51).

What has also changed in recent digital humanities is that previously isolated research projects can now be integrated with others and provide common tools and

databases for other researchers. This ties into what McCarty calls the unsolved problem of interoperability, which means the ability of independently developed components successfully to interact with each other (McCarty, 2002:108). Digital projects often used to be very specific, and they satisfied specific research communities or sometimes even individual scholars. Today there is a tendency to create 'whole lifecycle research environments according to Tobias Blanke and Mark Hedges (2013).

In our case we believe that Walter Benjamin's work has some specific characteristics. Firstly, Benjamin's work is highly dispersed and we could not really understand it in parts, something that has been done in the past as scholars relied merely on some of his works or fragments of his thoughts. It will be interesting and mentally challenging to imagine a 'work site' for the PW. Even if suggestions for a hypermedia edition of the PW have appeared even from the early 1990s (Ulmer, 1991) nothing has been done.

For Kevin McLaughlin, who has together with Howard Eiland translated the PW into English, 'working with the Arcades Project means becoming involved not with a self consistent text and author but rather with a "criticizable" field of textual relations that refuses to be enclosed by the classical categories of text and author' (2003:197).

Of course this not a place to suggest rigid alternative editions to the printed one. It would be useful, of course, to create a digital archive of all of Benjamin's manuscripts because in that way a better understanding of how he thought and tried to construct his notes would be of immense value in order to understand the PW. This is particularly the nature of the PW - which is unfinished, constructed from Benjamin's

manuscripts and without many clues as to what his final plans were, as at some point he moved from his work on the PW to another book, which also remained unfinished, on the French poet Charles Baudelaire.

Future scholars could learn a lot, for example, from Tanya Clement's distant and paternal reading of a highly complex book, *The Making of Americans* (1925) by Gertrude Stein (1874-1946). Clement is describing analytically the use of some ready digital tools such as Data to Knowledge (D2K), which helped her to create visualizations, patterns and mappings of the text. Clement is very precise about how useful her experience was. She finally found that 'reading it [*The Making of Americas*] appears to have yielded limited material for scholarly work but reading the text differently as an object of pairings or as parts of combinations can provide us with more information' (2008:378). Alois Pilcher arrived at similar conclusions for the digital edition of Ludwig Wittgenstein's *Nachlaß Bergen Project* (1995). Pilcher mentions that the four main advantages of digital editions are: fast production, reproduction and distribution, openness for revision; capability for all types of computer assisted analyses; and finally, easily printable (Pichler, 1995). Today with the help also of Tim Berner Lee's semantic web with its dynamic ontologies the work of Wittgenstein can be better studied and searched with the intertextual relations between his works and the secondary literature (Pichler & Weber, 2013:7).

In his essay *One-Way Street* (1928) Benjamin prophetically expressed his idea that "the book is already at the present mode of scholarly production, an outdated mediation between two different filing systems. For everything that matters is to be found in the card box of the researcher who wrote it and the scholar studying it assimilates it into his own card index" (Benjamin, 1979:62). DHs practitioners argue and debate over terminologies between digital editions, projects or archives (Price,

2009) and we could argue that Benjamin's archive and writings have to offer to DHs many possibilities to examine their techniques and the new digital tools. Benjamin himself was a writer who developed unusual even for our days techniques of researching and managing his archival material. He was also famous for his collection of books, particularly children's' fairy tales, and his aphorism that books can provide us with emotions and thoughts even without reading them (Beaver, 2006:78). He now are aware for example that the historian of books do not extract information from reading books but from evaluating their material characteristics and stylistics. We saw also previously the method also of distant reading that Franco Moretti among others apply in order to study huge corpora.

To conclude, we definitely believe and wish that Benjamin's manuscripts will properly find their way into an electronic edition at some point. It may be useful in illustrating the way that we was working with all his diagrams and multicolored notes and it will provide the users with a great intellectual emotional delight that only the engagement with the archival material of an author can offer (Rippin, 2013:44).

Conclusion

We tried in the above to show the common theoretical fields and problematic that the practitioners of DHs could possibly find in the oeuvre of Walter Benjamin. We hope that it was clear that the main issue that occupied Benjamin's thought and this is why his thought remains so relevant and his works so widely read today is because he originally tried to think how our cognitive abilities will be changed from the new media. In an age without brain scans and all these latest technical advances Benjamin thought carefully about the liberating possibilities but also the dangerous alienating traps that they also hide. His work invites us to think how we got affected but also that it is also important to try and affect them too. According to Fitzpatrick, "we must examine our values and the ways that our new technologies may affect them, in order to make the most productive use of those new forms" (2011b:4) or for McCarty we should examine the questions of what kind of things do we do digital scholarship and how can we improve our questions? (2009b:3). In our opinion DHs can only be benefited if they engage theoretically and practically with the thought and work of Walter Benjamin. This is just an encouragement for further theoretical discussion and scholarly research.

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